On May 2, 2016, at 12:56 PM, Bunker, Byron

 Sunker.byron@epa.gov> wrote: Thanks John. Just the three recent reports from UK, Germany and France. Thanks, Byron ************ Byron Bunker Director Compliance Division Office of Transportation and Air Quality **Environmental Protection Agency** 2000 Traverwood Drive Ann Arbor, MI 48105 Bunker.Byron@epa.gov Phone: (734) 214-4155 Mobile: (734) 353-9623 From: John German [mailto:john@theicct.org] Sent: Monday, May 02, 2016 11:28 AM To: Bunker, Byron <bunker.byron@epa.gov> Cc: Anup Bandivadekar <anup@theicct.org>; Muncrief Rachel <achel@theicct.org>; Drew Kodjak <achel@theicct.org>; Wehrly, Linc <wehrly.linc@epa.gov>; Zaremski, Sara <zaremski.sara@epa.gov>; Courtois, William <Courtois.William@epa.gov> Subject: Re: FTP bag data on US diesel vehicles I think we mentioned 10-15 reports in the draft post, Byron. Did you want all of them? John On May 2, 2016, at 10:45 AM, Bunker, Byron

Sunker.byron@epa.gov> wrote: Hi John, I am out this morning but will try to follow up with our team this afternoon on the request. In the meantime, can you forward the various reports mentioned in the post to me? Thanks, Byron Sent from my iPhone On May 2, 2016, at 10:33 AM, John German < iohn@theicct.org > wrote: Byron, Drew wants a specific signoff from EPA, that we can use your data, before we publish the blog. Attached is the latest draft (note that it is still subject to change and approval, so please don⣙t circulate it beyond this group). The hot restart section starts at the bottom of page 5 and the use of the EPA data is discussed from the bottom of page 7 to the top of page 8. Is the use of EPA bag data discussed on these pages OK? In addition, it appears that the data set includes class 2b (and 3?) trucks. I divided the data by calculating the bag-weighted FTP emissions and only using data below the Tier 2 bin 5 NOx emission standard (0.07). Is this an appropriate way to determine data on light-duty diesels? Alternatively, can EPA identify the emission standard to which the vehicles were certified to?

We would appreciate a prompt response, as this is the final issue we need to resolve to post the blog and the data reports from the French, German, and UK Agencies are a huge deal in Europe.

John

<Blog JG - the defeat device exclusion mirage v7.docx>

On Apr 26, 2016, at 9:47 PM, John German < john@theicet.org> wrote:

More importantly, almost half of the vehicles in the list (39 out of 86) had FTP weighted NOx emissions that are above the Tier 2 bin5 standard - most at least twice the bin 5 standard.

Are class 2B/3 trucks included in the data? If so, could you either restrict the data to light-duty vehicles or let me know which are the 2B/3 vehicles?

John

On Apr 26, 2016, at 9:22 PM, John German < john@theicct.org> wrote:

This is great, Byron. And timely - I have a blog drafted and I'II get this data added to the draft tomorrow.

Question - can you give us the key to the manufacturer codes? Some of them are not obvious who they refer to. Also, there were a couple vehicles that did not have a manufacturer code (given the extensive nature of the test data, I can easily just delete these if it is not easy to get the data).

John

On Apr 26, 2016, at 8:45 PM, Bunker, Byron

bunker.byron@epa.gov> wrote:

Hi John.

Attached are the FTP results that the team pulled together from testing at NVFEL. Thanks to Bill Courtois and Sara Zaremski for making this happen.

I hope this is helpful. If you draw any important conclusions from the data we would appreciate hearing about it.

Thanks,

Byron

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From: Zaremski, Sara

Sent: Tuesday, April 26, 2016 2:40 PM

To: Bunker, Byron < bunker.byron@epa.gov>; Wehrly, Linc <wehrly.linc@epa.gov>; Alson, Jeff <alson.jeff@epa.gov>

Subject: RE: FTP bag data on US diesel vehicles

Attached are the results we got from TATD (we filtered out some of the extraneous information). Please let me know if you need anything else. Just to note there three rows per test (one for each bag) and the right-most column computes the NOx ratio of bag 1 to bag 3.

sara

From: Bunker, Byron

Sent: Monday, April 25, 2016 1:00 PM

To: Zaremski, Sara <sara@epa.gov; Danzeisen, Karen@epa.gov; Alson, Jeff behrly, Linc wehrly, Linc wehrly, linc wehrly, linc wehrly, linc wehrly, linc mehrly.linc@epa.gov; Alson, Jeff

<alson.jeff@epa.gov>

Subject: RE: FTP bag data on US diesel vehicles

Hi Sara,

Yes, can you have someone check with TATD on this? If it is a large work burden, we should respond to John and let him know that we aren't able to accommodate. If data query will be reasonably quick/easy, then I would like for

us to get the requested data.

Thanks,

Byron

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From: Zaremski, Sara

Sent: Monday, April 25, 2016 12:51 PM

To: Danzeisen, Karen < <u>Danzeisen.Karen@epa.gov</u>>; Bunker, Byron < <u>bunker.byron@epa.gov</u>>; Wehrly, Linc < <u>wehrly.linc@epa.gov</u>>; Alson, Jeff <alson.jeff@epa.gov>

Subject: RE: FTP bag data on US diesel vehicles

Thank you Karen,

Byron,

As you can see this is not information that we have in Verify. We can reach out to TATD if you would like, but that will only be for EPA run confirmatory tests. We do not know how much effort this will be for TATD. They measure this information, but they do not send it to us so I am not sure how big of an "ask†this is for them. Let me know if you would like us to reach out to TATD.

From: Danzeisen, Karen

Sent: Monday, April 25, 2016 9:07 AM
To: Zaremski, Sara <<u>zaremski.sara@epa.gov</u>>
Subject: RE: FTP bag data on US diesel vehicles

Hi Sara,

Unfortunately for John, the Verify system only collects emission test result data at the bag level for fuel economy and CO2. I talked to Bob to confirm that (in case I was missing something). He agreed that we don't have it in Verify; however, the lab collects it for their fuel economy calculations. It6™s unclear as to how much effort it would take them to retrieve it and they would obviously only have it for vehicles we tested here.

Karen

Karen E. Danzeisen information Technology Specialist Office of Transportation and Air Quality U.S. Environmental Protection Agency

danzeisen.karen@epa.gov (734)214-4444

www.epa.gov/nvfel/

From: Zaremski, Sara

Sent: Sunday, April 24, 2016 9:46 AM

To: Danzeisen, Karen < <u>Danzeisen.Karen@epa.gov</u>>
Subject: Fwd: FTP bag data on US diesel vehicles

Can you see what can be pulled together for this in a relatively short timeframe? Stop by Monday if you have follow up questions.

Thanks, Sara

Sent from my iPhone

Begin forwarded message:

From: "Zaremski, Sara" < zaremski, sara@epa gov>
Date: April 24, 2016 at 9:44:21 AM EDT
To: "Bunker, Byron" < bunker, byron@epa.gov>
Cc: "Wehrly, Linc" < wehrly_line@epa.gov>, "Alson, Jeff" < alson.jeff@epa.gov>

Subject: Re: FTP bag data on US diesel vehicles

I will talk to her. If we have the data (which we may not for all those model years), she should be able to pull it together. I believe we did not start collecting bag data until more recently. We will look into it first thing tomorrow.

Sent from my iPhone

On Apr 24, 2016, at 9:11 AM, Bunker, Byron wrote">bunker.byron@epa.gov> wrote:

Hi Sara,

Please see John's note copied below. Is this something that Karen could do for us this week? If that can happen without unreasonably impacting her other work, let's see if we can send something responsive to John.

Thanks,

Byron

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From: John German [mailto:john@theicct.org]

Sent: Friday, April 22, 2016 5:49 PM

To: Wehrly, Linc <wehrly.linc@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Alson, Jeff

<alson.jeff@epa.gov>

Cc: Anup Bandivadekar <anup@theicct.org>; Muncrief

Rachel < rachel@theicct.org >; Drew Kodjak

<drew@theicct.org>

Subject: FTP bag data on US diesel vehicles

Linc/Byron/Jeff,

In the last two days, the French, UK, and German governments have released the results of their testing on diesel cars in Europe, with almost 150 vehicles tested in total. This testing has confirmed high in-use NOx emissions on the large majority of diesels, but for the most part the agencies are saying that this is OK because of the defeat device exclusion for engine damage.

The two specific areas of concern are ambient temperature and hot restarts, as emissions skyrocket below 10-15C (50-60F) and after a hot restart. Manufacturers claim they need to deactivate EGR at lower ambient temperatures due to condensation in the engine (defeat device exclusion). They also claim that NOx emissions are higher after hot restarts due to higher combustion temperatures.

I was hoping to find relevant data from $EPA\hat{a}e^{TM}$ s online test data files to rebut these claims. Unfortunately, it

appears that diesels are except from the 20F and 50F testing requirements, so I canâ \mathcal{C}^{TM} t see how emissions work at colder temperatures in the US.

Which leaves comparing bag 1 to bag 3 test results to evaluate the claim about higher NOx emissions after hot restarts. Unfortunately, the test car lists do not include emissions by bag. I checked a Certificate for Conformity (2012 Audi 3.0L diesel) and it does not have bag data either.

Thus, I am asking if EPA can provide us with NOx emissions by bag for 2009-2015 light-duty diesels. This would be definitive evidence refuting the manufacturers claims about higher NOx emission after hot restarts, which would be extremely valuable to ICCT in our work in Europe.

Any chance that someone at EPA could provide us with this data? Quickly?

John 734-355-1055

<JohnGermanNOxQuery_160426_v2.xls>